CLAIMS

The invention is claimed as follows:

1. A pre-packaged nutritional composition formulated for a toddler comprising sodium in an amount that is equal to or less than 200 mg per 100 kcal nutritional composition, wherein the nutritional composition includes a food component selected from the group consisting of meat, beans, milk, cheese, yogurt, grains, pasta, fruit, vegetables, and combinations thereof.

2. The nutritional composition according to Claim 1 further comprising at least one of: a source of potassium chloride, a flavorant, a taste masking flavorant.

3. The nutritional composition according to Claims 2, wherein the source of potassium chloride is present in an amount from about 0.1% to about 1.0% by weight of the nutritional composition.

4. The nutritional composition according to Claim 1, further comprising at least one of:

a source of protein selected from the group consisting of dairy based proteins, plant based proteins, animal based proteins, artificial proteins, and combinations thereof;

a prebiotic selected from the group consisting of acacia gum, alpha glucan, arabinogalactans, beta glucan, dextrans, fructooligosaccharides, fucosyllactose, galactooligosaccharides, galactomannans, gentiooligosaccharides, glucooligosaccharides, guar gum, inulin, isomaltooligosaccharides, lactoneotetraose, lactosucrose, lactulose, levan, maltodextrins, milk oligosaccharides, partially hydrolyzed guar gum, pecticoligosaccharides, resistant starches, retrograded starch, sialooligosaccharides, sialyllactose, soyoligosaccharides, sugar alcohols, xylooligosaccharides, their hydrolysates, and combinations thereof;

probiotic selected from the group consisting of probiotics include *Aerococcus*, *Aspergillus*, *Bacteroides*, *Bifidobacterium*, *Candida*, *Clostridium*,

Debaromyces, *Enterococcus*, *Fusobacterium*, *Lactobacillus*, *Lactococcus*, *Leuconostoc*, *Melissococcus*, *Micrococcus*, *Mucor*, *Oenococcus*, *Pediococcus*, *Penicillium*, *Peptostrepococcus*, *Pichia*, *Propionibacterium*, *Pseudocatenulatum*, *Rhizopus*, *Saccharomyces*, *Staphylococcus*, *Streptococcus*, *Torulopsis*, *Weissella*, and combinations thereof;

a source of ω-3 fatty acids, the source selected from the group consisting of fish oil, krill, plant sources containing ω-3 fatty acids, flaxseed, walnut, algae, and combinations thereof;

an antioxidant selected from the group consisting of astaxanthin, carotenoids, coenzyme Q10 ("CoQ10"), flavonoids, glutathione, Goji (wolfberry), hesperidin, lactowolfberry, lignan, lutein, lycopene, polyphenols, selenium, vitamin A, vitamin C, vitamin E, zeaxanthin, and combinations thereof;

a vitamin, wherein the vitamin is selected from the group consisting of vitamin A, Vitamin B1 (thiamine), Vitamin B2 (riboflavin), Vitamin B3 (niacin or niacinamide), Vitamin B5 (pantothenic acid), Vitamin B6 (pyridoxine, pyridoxal, or pyridoxamine, or pyridoxine hydrochloride), Vitamin B7 (biotin), Vitamin B9 (folic acid), and Vitamin B12 (various cobalamins; commonly cyanocobalamin in vitamin supplements), vitamin C, vitamin D, vitamin E, vitamin K, , folic acid, biotin, and combinations thereof;

a mineral, wherein the mineral is selected from the group consisting of boron, calcium, chromium, copper, iodine, iron, magnesium, manganese, molybdenum, nickel, phosphorus, potassium, selenium, silicon, tin, vanadium, zinc, and combinations thereof;

5. A method of reducing the dietary sodium intake of a young child from about one year to about four years of age, the method comprising the steps of:

providing a nutritional composition having sodium in an amount that is equal to or less than 200 mg per 100 kcal nutritional composition; and

administering the nutritional composition to the toddler.

6. The method according to Claim 5, wherein the nutritional composition is selected from the group consisting of those claimed in Claim 1 to Claim 5.

7. A method for producing a low sodium nutritional composition, the method comprising the steps of:

preparing a first slurry, wherein the first slurry comprises water and dry ingredients;

heating the first slurry to a first predetermined temperature;

cooling the first slurry to a second predetermined temperature;

adding a second slurry to the first slurry to form a nutritional composition, wherein the second slurry comprises at least cold water and a source of potassium chloride, wherein the source of potassium chloride is present in an amount from about 0.1% to about 1.0% by weight; and

packaging the nutritional composition.

8. The method according to Claim 7, wherein the dry ingredients include a food component selected from the group consisting of meat, beans, cheese, yogurt, grains, pasta, fruit, vegetables, and combinations thereof.

9. The method according to Claim 7, wherein the second slurry is colder than the second predetermined temperature at the addition step.

10. The method according to Claim 7, wherein the second slurry comprises a temperature of equal to or less than about 32ºF.

11. The method according to Claim 7, wherein the first predetermined temperature is from about 170ºF to about 200ºF.

12. The method according to Claim 7, wherein the first predetermined temperature is about 180ºF.

13. The method according to Claim 7, wherein the heating is accomplished by direct steam injection.

14. The method according to Claim 7, wherein the second predetermined temperature is from about 50ºF to about 100ºF.

15. The method according to Claim 7, wherein the second predetermined temperature is about 70ºF.

16. The method according to Claim 7, wherein the cooling is accomplished by a step selected from the group consisting of adding frozen particulates to the first slurry, adding ice to the first slurry, exposing the heated slurry to ambient temperature, and combinations thereof.

17. The method according to Claim 7, wherein the source of potassium chloride is a ready-to-use mixture of potassium chloride and at least one taste masking flavorant.

18. The method according to Claim 17, wherein the at least one taste masking flavorant, masks the flavor of potassium chloride

19. The method according to Claim 7, further comprising the step of mixing the first slurry with the second slurry to achieve a third predetermined temperature.

20. The method according to Claim 19, wherein the third predetermined temperature is from about 50ºF to about 100ºF.

CLAIMS

The invention is claimed as follows:

1. A method for producing a low sodium nutritional composition, the method comprising the steps of:

preparing a first slurry, wherein the first slurry comprises water and dry ingredients;

heating the first slurry to a first predetermined temperature;

cooling the first slurry to a second predetermined temperature;

adding a second slurry to the first slurry to form a nutritional composition, wherein the second slurry comprises at least cold water and a source of potassium chloride, wherein the source of potassium chloride is present in an amount from about 0.1% to about 1.0% by weight; and

packaging the nutritional composition.

2. The method according to Claim 1, wherein the dry ingredients include a food component selected from the group consisting of meat, beans, cheese, yogurt, grains, pasta, fruit, vegetables, and combinations thereof.

3. The method according to Claim 1, wherein the second slurry is colder than the second predetermined temperature at the addition step.

4. The method according to Claim 1, wherein the second slurry comprises a temperature of equal to or less than about 32ºF.

5. The method according to Claim 1, wherein the first predetermined temperature is from about 170ºF to about 200ºF.

6. The method according to Claim 1, wherein the first predetermined temperature is about 180ºF.

7. The method according to Claim 1, wherein the heating is accomplished by direct steam injection.

8. The method according to Claim 1, wherein the second predetermined temperature is from about 50ºF to about 100ºF.

9. The method according to Claim 1, wherein the second predetermined temperature is about 70ºF.

10. The method according to Claim 1, wherein the cooling is accomplished by a step selected from the group consisting of adding frozen particulates to the first slurry, adding ice to the first slurry, exposing the heated slurry to ambient temperature, and combinations thereof.

11. The method according to Claim 1, wherein the source of potassium chloride is a ready-to-use mixture of potassium chloride and at least one taste masking flavorant.

12. The method according to Claim 11, wherein the at least one taste masking flavorant, masks the flavor of potassium chloride.

13. The method according to Claim 1, further comprising the step of mixing the first slurry with the second slurry to achieve a third predetermined temperature.

14. The method according to Claim 13, wherein the third predetermined temperature is from about 50ºF to about 100ºF.

15. A pre-packaged nutritional composition formulated for a toddler obtainable by the method according to claims 1 to 14, comprising sodium in an amount that is equal to or less than 200 mg per 100 kcal nutritional composition, wherein the nutritional composition includes a food component selected from the group consisting of meat, beans, milk, cheese, yogurt, grains, pasta, fruit, vegetables, and combinations thereof.

16. The nutritional composition according to Claim 15 further comprising at least one of: a source of potassium chloride, a flavorant, a taste masking flavorant.

17. The nutritional composition according to Claim 16, wherein the source of potassium chloride is present in an amount from about 0.1% to about 1.0% by weight of the nutritional composition.

18. The nutritional composition according to Claim 15, further comprising at least one of:

a source of protein selected from the group consisting of dairy based proteins, plant based proteins, animal based proteins, artificial proteins, and combinations thereof;

a prebiotic selected from the group consisting of acacia gum, alpha glucan, arabinogalactans, beta glucan, dextrans, fructooligosaccharides, fucosyllactose, galactooligosaccharides, galactomannans, gentiooligosaccharides, glucooligosaccharides, guar gum, inulin, isomaltooligosaccharides, lactoneotetraose, lactosucrose, lactulose, levan, maltodextrins, milk oligosaccharides, partially hydrolyzed guar gum, pecticoligosaccharides, resistant starches, retrograded starch, sialooligosaccharides, sialyllactose, soyoligosaccharides, sugar alcohols, xylooligosaccharides, their hydrolysates, and combinations thereof;

probiotic selected from the group consisting of probiotics include *Aerococcus*, *Aspergillus*, *Bacteroides*, *Bifidobacterium*, *Candida*, *Clostridium*, *Debaromyces*, *Enterococcus*, *Fusobacterium*, *Lactobacillus*, *Lactococcus*, *Leuconostoc*, *Melissococcus*, *Micrococcus*, *Mucor*, *Oenococcus*, *Pediococcus*, *Penicillium*, *Peptostrepococcus*, *Pichia*, *Propionibacterium*, *Pseudocatenulatum*, *Rhizopus*, *Saccharomyces*, *Staphylococcus*, *Streptococcus*, *Torulopsis*, *Weissella*, and combinations thereof;

a source of ω-3 fatty acids, the source selected from the group consisting of fish oil, krill, plant sources containing ω-3 fatty acids, flaxseed, walnut, algae, and combinations thereof;

an antioxidant selected from the group consisting of astaxanthin, carotenoids, coenzyme Q10 ("CoQ10"), flavonoids, glutathione, Goji (wolfberry),

hesperidin, lactowolfberry, lignan, lutein, lycopene, polyphenols, selenium, vitamin A, vitamin C, vitamin E, zeaxanthin, and combinations thereof;

a vitamin, wherein the vitamin is selected from the group consisting of vitamin A, Vitamin B1 (thiamine), Vitamin B2 (riboflavin), Vitamin B3 (niacin or niacinamide), Vitamin B5 (pantothenic acid), Vitamin B6 (pyridoxine, pyridoxal, or pyridoxamine, or pyridoxine hydrochloride), Vitamin B7 (biotin), Vitamin B9 (folic acid), and Vitamin B12 (various cobalamins; commonly cyanocobalamin in vitamin supplements) vitamin C, vitamin D, vitamin E, vitamin K, , folic acid, biotin, and combinations thereof;

a mineral, wherein the mineral is selected from the group consisting of boron, calcium, chromium, copper, iodine, iron, magnesium, manganese, molybdenum, nickel, phosphorus, potassium, selenium, silicon, tin, vanadium, zinc, and combinations thereof;

19. A method of reducing the dietary sodium intake of a young child from about one year to about four years of age, the method comprising the steps of:

providing a nutritional composition obtainable by the method according to claims 1 to 14, having sodium in an amount that is equal to or less than 200 mg per 100 kcal nutritional composition; and

administering the nutritional composition to the toddler.

20. The method according to Claim 19, wherein the nutritional composition is selected from the group consisting of those claimed in Claim 15 to Claim 19.